

WEST **Generate Collection**

LS: Entry 1 of 2

File: EPAB

Mar 10, 1982

PUB-NO: EP000046912A1

DOCUMENT-IDENTIFIER: EP 46912 A1

TITLE: Cyanide gold-baths and process for the galvanic deposition of gold-dispersion coatings that contain solid lubricant, and its application.

PUBN-DATE: March 10, 1982

INVENTOR-INFORMATION:

NAME	COUNTRY
BEHRINGER, GEORG	
LAUB, HANS DR	

ASSIGNEE-INFORMATION:

NAME	COUNTRY
SIEMENS AG	DE

APPL-NO: EP81106338

APPL-DATE: August 14, 1981

PRIORITY-DATA: DE03032469A (August 28, 1980)

US-CL-CURRENT: 205/109

INT-CL (IPC): C25D 3/48; C25D 15/02

EUR-CL (EPC): C25D003/48; C25D015/02

ABSTRACT:

1. Cyanide alkaline and acid gold baths containing brightening additions, for the electrodeposition of gold dispersion coatings which contain solid lubricants, characterised in that they contain 10-200 g/l of a solid lubricant of a particle size =< 0.1-5 μm and 1-30 g/l of at least one isoalkyl sulphate which is soluble in acid and alkaline aqueous gold baths.

WEST**End of Result Set** [Generate Collection](#) [Print](#)

L5: Entry 2 of 2

File: DWPI

Mar 10, 1982

DERWENT-ACC-NO: 1982-20097E

DERWENT-WEEK: 198211

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TITLE: Acid or alkaline gold cyanide electroplating baths - also contain graphite, so gold deposit includes dispersion of fine graphite particles increasing wear resistance, esp. on electric contacts

INVENTOR: BEHRINGER, G; LAUB, H

PATENT-ASSIGNEE:

ASSIGNEE	CODE
SIEMENS AG	SIEI

PRIORITY-DATA: 1980DE-3032469 (August 28, 1980)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 46912 A</u>	March 10, 1982	G	011	
DE 3032469 A	April 1, 1982		000	
<u>EP 46912 B</u>	July 11, 1984	G	000	

DESIGNATED-STATES: AT CH FR GB IT LI SE AT CH FR GB IT LI SE

CITED-DOCUMENTS: 1.Jnl.Ref; DE 2543082 ; FR 2434873

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
EP 46912A	August 14, 1981	1981EP-0106338	

INT-CL (IPC): C25D 3/48; C25D 15/02

ABSTRACTED-PUB-NO: EP 46912A

BASIC-ABSTRACT:

The aq. bath contains cyanide; brighteners; 1-30 g/l of at least one iso-alkyl sulphate soluble in the bath; and 10-200 g/l of a fine-grained solid lubricant which forms a dispersion in the gold deposit. The pref. bath contains 50-150g/l of solid lubricant, esp. graphite, with a particle size of 0.1-5 microns, and 5-15 g/l iso-alkyl sulphate(s).

The bath is pref. used at 20-70 deg.C. and a current density of 0.2-40 A/sq. dm. The object is to provide gold coatings with increased resistance to both abrasion and corrosion, esp. on electric contacts subjected to high mechanical stresses.

Used esp. on relay contact or connector plugs. Reciprocating friction tests against an Ag/Pd contact rivet showed that gold/graphite coatings had excellent wear resistance. Other possible lubricants are the sulphides or selenides of Mo, W, Nb or Ta.

ABSTRACTED-PUB-NO:

EP 46912B

EQUIVALENT-ABSTRACTS:

The aq. bath contains cyanide; brighteners; 1-30 g/l of at least one iso-alkyl sulphate soluble in the bath; and 10-200 g/l of a fine-grained solid lubricant which forms a dispersion in the gold deposit. The pref. bath contains 50-150g/l of solid lubricant, esp. graphite, with a particle size of 0.1-5 microns, and 5-15 g/l iso-alkyl sulphate(s).

The bath is pref. used at 20-70 deg.C. and a current density of 0.2-40 A/sq. dm. The object is to provide gold coatings with increased resistance to both abrasion and corrosion, esp. on electric contacts subjected to high mechanical stresses.

Used esp. on relay contact or connector plugs. Reciprocating friction tests against an Ag/Pd contact rivet showed that gold/graphite coatings had excellent wear resistance. Other possible lubricants are the sulphides or selenides of Mo, W, Nb or Ta. (11pp)

TITLE-TERMS: ACID ALKALINE GOLD CYANIDE ELECTROPLATING BATH CONTAIN GRAPHITE SO GOLD DEPOSIT DISPERSE FINE GRAPHITE PARTICLE INCREASE WEAR RESISTANCE ELECTRIC CONTACT

DERWENT-CLASS: E36 L03 M11 V03 V04 X25

CPI-CODES: E10-A09A; E31-N04; L03-A01A; M11-A05;

EPI-CODES: V03-A09; V04-D01; X25-R04;

CHEMICAL-CODES:

Chemical Indexing M3 *01*

Fragmentation Code

C106 C810 M411 M782 M903 M910 Q454 Q462 Q463 R023

Chemical Indexing M3 *02*

Fragmentation Code

K0 K4 K421 M210 M215 M216 M220 M221 M222 M223
M224 M225 M226 M232 M272 M281 M320 M416 M620 M630
M782 M903 Q454 Q462 Q463 R023

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1175U; 1778U

=> s ep46912/pn
L1 1 EP46912/PN

=> d all

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1982:207468 CAPLUS
DN 96:207468
TI Cyanide gold-baths and electroplating of gold-composite coatings containing solid lubricants and their application
IN Behringer, Georg; Laub, Hans
PA Siemens A.-G. , Fed. Rep. Ger.
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW

DT Patent

LA German

IC C25D003-48; C25D015-02

CC 72-8 (Electrochemistry)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 46912	A1	19820310	EP 1981-106338	19810814 <--
	EP 46912	B1	19840711		
	R: AT, CH, FR, GB, IT, SE				
	DE 3032469	A1	19820401	DE 1980-3032469	19800828
	AT 8415	E	19840715	AT 1981-106338	19810814
PRAI	DE 1980-3032469		19800828		
	EP 1981-106338		19810814		

AB Baths are given for the title electroplating for use in making of elec. contacts (plugs) and relays. A typical bath contains: KAu(CN)₂ 12, KCN 35, Na₂HPO₄ 10, KAg(CN)₂ 0.5-1, Na 2-methylpentyl sulfate 15, and graphite

(0.1-1 .mu.m) 80 g/L. The bath pH was 11.5, the templ. 20-25.degree., and the c.d. 0.4 A/dm². A 2 .mu.m coating was obtained which contained 0.66% graphite.

ST gold electrodeposition solid lubricant composite; graphite composite gold electrodeposition

IT 7440-57-5, uses and miscellaneous

RL: USES (Uses)
(electroplating of, with particles of solid lubricants, for elec. contacts)

IT 81793-39-7 81793-40-0 81793-41-1

RL: PRP (Properties)
(in electroplating, of gold contg. solid lubricant particles)

IT 1317-33-5, uses and miscellaneous 7782-42-5, uses and miscellaneous

RL: USES (Uses)
(lubricant, particles in gold electroplates, for elec. contacts)

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WEST**End of Result Set** [Generate Collection](#) [Print](#)

L1: Entry 3 of 3

File: DWPI

Apr 15, 1982

DERWENT-ACC-NO: 1982-37342E

DERWENT-WEEK: 198219

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TITLE: Acid bath for plating white gold alloy - contg. nickel or cobalt salt, carboxylic acid and sulphonic or sulphinic acid brightener

INVENTOR: ERWIN, M; FRANCESCO, Z ; PIERRE, L

PATENT-ASSIGNEE:

ASSIGNEE	CODE
SYST TRAITEMENTS SU	TRAIN

PRIORITY-DATA: 1978CH-0001954 (February 23, 1978)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CH 629258 A	April 15, 1982		003	

INT-CL (IPC): C25D 3/48

ABSTRACTED-PUB-NO: CH 629258A

BASIC-ABSTRACT:

*Gold
alloy
PH*

Bath comprises (1) alkali or ammonium aurocyanide salts; (2) Ni and/or Co as water-soluble cpds.; (3) at least one 2-8C hydroxy- or amino-acids contg. one amino or 1-6 hydroxy gps. and 1-3 carboxy gps. (opt. as NH₄ or alkali salts) and (4) as brightener an aromatic and/or aliphatic sulphonic or sulphuric acid. The gold concn. is 0.5-20 g and the Ni-Co concn. is 1-50 g per l and bath pH is 3-5. Pref. brighteners, used at 5 mg - 10g per l, are X.R.SO₃H (R is an opt. subst. aliphatic, aromatic or cyclic gp.; X is H, SH, SO₃H, SR₁, SR₂.SO₃H; R₁ and R₂ are as R, and when R is an aliphatic gp. then X can also be (amino)heterocyclyl).

The bath is used to deposit ductile, colour-stable and very hard white Au-Ni and Au-Co alloys of high Au content. Coatings over 20 microns thick can be prep'd., which are free of porosity, roughness etc., with high deposition rates and the hydrogen evolved does not adversely effect brightness, appearance etc. The coatings are used where very high resistance to shock, fatigue, wear and abrasion are required, e.g. electrical contacts.

TITLE-TERMS: ACID BATH PLATE WHITE GOLD ALLOY CONTAIN NICKEL COBALT SALT CARBOXYLIC ACID SULPHONIC SULPHINIC ACID BRIGHTEN

DERWENT-CLASS: E19 M11 V03 V04

CPI-CODES: E05-C; E06-F01; E07-A02; E10-A09B; E10-A09C; E10-B02B; E10-C02; E10-C04D; M11-A02; M11-A05; M11-B01;

EPI-CODES: V03-A09; V04-P09; V04-R02;

CHEMICAL-CODES:

Chemical Indexing M3 *01*

=> s ch629258/pn
L3 1 CH629258/PN

=> d all

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1982:430319 CAPLUS
DN 97:30319
TI Bath for electroplating of a white gold alloy
IN Marka, Erwin; Laude, Pierre; Zuntini, Francesco
PA Systemes de Traitements de Surfaces S. A., Switz.
SO Patentschrift (Switz.), 3 pp.
CODEN: SWXXAS

DT Patent

LA French

IC C25D003-48; C25D003-56

CC 72-8 (Electrochemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	CH 629258	A	19820415	CH 1978-1954	19780223 <--
PRAI	CH 1978-1954		19780223		

AB A bath for electroplating of a white Au alloy contains, as brighteners, org. sulfonic or sulfinic compds. The plates are remarkably bright and free of internal stresses even at great thicknesses. This bath is useful in high-speed electroplating and produces white alloys of Au-Ni or Au-Co (with 10-30% Co or Ni). For example, a bath is prep'd. contg. the following: KAu cyanide 2, NiSO₄ 40, K citrate 60, In sulfate 0.2 and 1-propene-3-sulfonic acid 5 g/L. At pH 3.6 (obtained by adding citric acid), white and bright plates are obtained by electrolysis at c.d. 1-3 A/cm² and temp. 30-35.degree.. The deposits are 21.5-22 carats.

H₂C=CH-CH₂-SO₃H ST electroplating gold white alloy bath; cobalt gold alloy electroplating bath; nickel gold alloy electroplating bath

IT 82184-13-2 82184-14-3

RL: PRP (Properties)
(electroplating of, baths for bright)
IT 87-69-4, uses and miscellaneous 107-57-3 112-57-2 526-95-4
1606-80-0 4371-23-7 7778-49-6 7786-81-4 7803-57-8 13464-82-9
38878-01-2

RL: USES (Uses)
(in electroplating, of bright and white gold)
IT 82186-69-4 82198-58-1

RL: PRP (Properties)
(in electroplating, of bright and white gold)

=>

WEST **Generate Collection**

L1: Entry 1 of 3

File: EPAB

Apr 15, 1982

PUB-NO: CH000629258A5

DOCUMENT-IDENTIFIER: CH 629258 A5

TITLE: Bath for electrolytic deposition of white gold alloy

PUBN-DATE: April 15, 1982

INVENTOR-INFORMATION:

NAME	COUNTRY
MARKA, ERWIN	CH
LAUDE, PIERRE	FR
ZUNTINI, FRANCESCO	CH

ASSIGNEE-INFORMATION:

NAME	COUNTRY
SYSTEMES TRAITEMENTS SURFACES	CH

APPL-NO: CH00195478

APPL-DATE: February 23, 1978

PRIORITY-DATA: CH00195478A (February 23, 1978)

US-CL-CURRENT: 205/249

INT-CL (IPC): C25D 3/48; C25D 3/56

EUR-CL (EPC): C25D003/62

ABSTRACT:

CHG DATE=19990617 STATUS=O> This bath contains brightening additives in the form of organic sulphonic or sulphinic compounds. The deposits are remarkably bright and devoid of internal stresses, even at high thicknesses. This bath lends itself to high-speed plating operations and produces white-coloured gold-nickel or gold-cobalt alloys. operations

WEST [Generate Collection](#) [Print](#)

L1: Entry 2 of 3

File: EPAB

Apr 15, 1982

PUB-NO: CH000629258A

DOCUMENT-IDENTIFIER: CH 629258 A

TITLE: Bath for electrolytic deposition of white gold alloy

PUBN-DATE: April 15, 1982

INVENTOR-INFORMATION:

NAME	COUNTRY
MARKA, ERWIN	CH
LAUDE, PIERRE	FR
ZUNTINI, FRANCESCO	CH

ASSIGNEE-INFORMATION:

NAME	COUNTRY
SYSTEMES TRAITEMENTS SURFACES	CH

APPL-NO: CH00195478

APPL-DATE: February 23, 1978

PRIORITY-DATA: CH00195478A (February 23, 1978)

US-CL-CURRENT: 205/249

INT-CL (IPC): C25D 3/48; C25D 3/56

EUR-CL (EPC): C25D003/62

ABSTRACT:

This bath contains brightening additives in the form of organic sulphonlic or sulphinic compounds. The deposits are remarkably bright and devoid of internal stresses, even at high thicknesses.

This bath lends itself to high-speed plating operations and produces white-coloured gold-nickel or gold-cobalt alloys.

WEST Search History

DATE: Tuesday, April 01, 2003

Set Name Query
side by side

Hit Count Set Name
result set

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; THES=ASSIGNEE;
PLUR=YES; OP=AND

L6	L5 not l4	16	L6
L5	l3 and (organic near5 (sul\$2ate or sul\$2onic or sul\$2onate))	28	L5
L4	L3 and (cyanide or aurocyanide)	152	L4
L3	L2 and (gloss\$5 or bright\$8)	314	L3
L2	L1 and (sul\$2onic or sul\$2onate or sul\$2ate)	1008	L2
L1	(gold or au) near5 (electroplat\$6 or electrodeposit\$6 or electroly\$6 or electrochem\$6)	6719	L1

END OF SEARCH HISTORY

WEST [Generate Collection](#) [Print](#)

L2: Entry 1 of 2

File: EPAB

Jun 20, 1991

PUB-N0: DE004040526A1

DOCUMENT-IDENTIFIER: DE 4040526 A1

TITLE: Electrocoating bath for gold alloys - using auric cyanide complex and alloy salt of alkyl:sulphonic or hydroxy:alkyl:sulphonic acid

PUBN-DATE: June 20, 1991

INVENTOR-INFORMATION:

NAME	COUNTRY
EMMENEGGER, HEINZ	CH

ASSIGNEE-INFORMATION:

NAME	COUNTRY
H E FINISHING SA	CH

APPL-NO: DE04040526

APPL-DATE: December 18, 1990

PRIORITY-DATA: CH00454489A (December 19, 1989)

INT-CL (IPC): C25D 3/48

EUR-CL (EPC): C25D003/62

ABSTRACT:

CHG DATE=19990617 STATUS=O>Electrolytic bath for pptg. Au alloy coatings in which the Au as Au³⁺ cyanide complex and the other alloying elements as salts of alkylsulphonic or hydroxyalkylsulphonic acid are present in the bath. The acid salts have a carbon chain of 1-6 atoms. The bath also contains alkylsulphonic or hydroxylalkyl-sulphonic acid. ADVANTAGE - The gold and other alloying elements are present as esp. stable complex ions in a strong acid soln

WEST**End of Result Set** [Generate Collection](#) [Print](#)

L2: Entry 2 of 2

File: DWPI

Jun 20, 1991

DERWENT-ACC-NO: 1991-186444

DERWENT-WEEK: 199126

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TITLE: Electrocoating bath for gold alloys - using auric cyanide complex and alloy salt of alkyl:sulphonic or hydroxy:alkyl:sulphonic acid

INVENTOR: EMMENEGGER, H

PATENT-ASSIGNEE:

ASSIGNEE	CODE
H E FINISHING SA	HEFIN
HE FINISHING SA	HEFIN

PRIORITY-DATA: 1989CH-0004544 (December 19, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 4040526 A</u>	June 20, 1991		000	
CH 680370 A	August 14, 1992		000	C25D003/56
<u>DE 4040526 C2</u>	August 4, 1994		005	C25D003/62
FR 2656007 A	June 21, 1991		000	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE 4040526A	December 18, 1990	1990DE-4040526	
CH 680370A	December 19, 1989	1989CH-0004544	
DE 4040526C2	December 18, 1990	1990DE-4040526	
FR 2656007A	November 30, 1990	1990FR-0015380	

INT-CL (IPC): C25D 3/48; C25D 3/56; C25D 3/62

ABSTRACTED-PUB-NO: DE 4040526A

BASIC-ABSTRACT:

Electrolytic bath for pptg. Au alloy coatings in which the Au as Au³⁺ cyanide complex and the other alloying elements as salts of alkylsulphonic or hydroxyalkylsulphonic acid are present in the bath. The acid salts have a carbon chain of 1-6 atoms. The bath also contains alkylsulphonic or hydroxylalkyl-sulphonic acid.

ADVANTAGE - The gold and other alloying elements are present as esp. stable complex ions in a strong acid soln

ABSTRACTED-PUB-NO:

DE 4040526C

EQUIVALENT-ABSTRACTS:

Bath for electrolytic deposition of Au alloys contg. 50-99% Au and alloying elements of the gp. comprising Sn, In, Co, Ni, Cu, Cd, Ga, Se, and Fe, contains Au as Au (III)

cyanide complex and the alloying element(s) as alkyl sulphonic or hydroxyalkyl sulphonic acids contg. a C chain with 1-6 C atoms, together with at least one alkyl sulphonic acid or hydroxyalkyl sulphonic acid. Bath pH is 0.1-7, pref. 0.1-5.

USE/ADVANTAGE - Used for electrolytic deposition of Au alloys, etc. Stable bath, uniform and adherent deposits.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: ELECTROCOATING BATH GOLD ALLOY AURIC CYANIDE COMPLEX ALLOY SALT ALKYL SULPHONIC HYDROXY ALKYL SULPHONIC ACID

DERWENT-CLASS: A97 M11

CPI-CODES: A12-W12E; M11-A05;

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0038 0231 0880 1417 3315

Multipunch Codes: 014 034 04- 091 093 104 105 106 155 157 27& 53& 678

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1991-080661

=> s de4040526/pn
L2 1 DE4040526/PN

=> d all

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1991:617287 CAPLUS
DN 115:217287
TI Bath for electrodeposition of gold alloys
IN Emmenegger, Heinz
PA Finishing, H. E., S. A., Switz.
SO Ger. Offen., 5 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C25D003-48
CC 72-8 (Electrochemistry)
Section cross-reference(s): 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4040526	A1	19910620	DE 1990-4040526	19901218 <--
	DE 4040526	C2	19940804		
	DE 4040526	C3	19980520		
	CH 680370	A	19920814	CH 1989-4544	19891219
	FR 2656007	A1	19910621	FR 1990-15380	19901130
	FR 2656007	B1	19921127		

PRAI CH 1989-4544 19891219

AB The a.c. or d.c. bath, in which Au exists as an Au(III) cyanide complex, contains other alloying elements as salts of Cl-6 alkyl sulfonic acid or hydroxyalkylsulfonic acid and at least an alkylsulfonic acid or hydroxyalkylsulfonic acid.

ST gold alloy electrodeposition bath

IT Sulfonic acids, uses and miscellaneous

RL: USES (Uses)

(electrodeposition of gold alloys from baths contg.)

IT 75-75-2, Methanesulfonic acid 594-45-6, Ethanesulfonic acid

15909-83-8

25153-40-6 28553-80-2, Propanesulfonic acid

RL: PRP (Properties)

(electrodeposition of gold alloys from baths contg.)

IT 7440-57-5, Gold, uses and miscellaneous 12670-46-1 12732-18-2

12785-33-0 37334-21-7 87467-01-4

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(electrodeposition of, bath for)

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=> d his

(FILE 'HOME' ENTERED AT 15:50:19 ON 01 APR 2003)

FILE 'CAPLUS' ENTERED AT 15:51:01 ON 01 APR 2003

L1 10665 S (GOLD OR AU) (3A) (ELECTROPLAT? OR ELECTRODEPOSIT? OR
ELECTRO
L2 713 S L1 AND (SULFONIC OR SULPHONIC OR SULFATE OR SULPHATE OR
SULFO
L3 60 S L2 AND BRIGHT?

=>

=> d

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 22767-49-3 REGISTRY
CN 1-Pentanesulfonic acid, sodium salt (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Pentylsulfonic acid sodium salt
CN **Sodium n-pentylsulfonate**
CN Sodium pentane-1-sulfonate
CN Sodium pentanesulfonate
CN **Sodium pentylsulfonate**
MF C5 H12 O3 S . Na
CI COM
LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT,
CHEMCATS, CHEMLIST, CSCHEM, DETHERM*, GMELIN*, MSDS-OHS, TOXCENTER,
USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (35452-30-3)

Me—(CH₂)₄—SO₃H

● Na

119 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
119 REFERENCES IN FILE CAPLUS (1962 TO DATE)

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=> d 13 all 13

L3 ANSWER 13 OF 60 CAPLUS COPYRIGHT 2003 ACS

AN 1994:710444 CAPLUS

DN 121:310444

TI Bath for electrodeposition of gold alloys containing iron-group metals

IN Socha, Jan; Walega, Anna; Inglot, Bronislaw

PA Instytut Mechaniki Precyzyjnej, Pol.

SO Pol., 4 pp.

CODEN: POXXA7

DT Patent

LA Polish

IC ICM C25D003-56

CC 72-8 (Electrochemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	PL 159266	B1	19921231	PL 1988-275344	19881018
PRAI	PL 1988-275344		19881018		

AB A bath for electrodeposition of gold alloys with iron-group metals contained alkali metal (or ammonium) cyanoaurate and their mixt. (1-10 g/L in recalcn. for gold) and sol. iron (or cobalt or nickel) salt (0.01-5 g/L). The bath consisted also of alkali metal salts of two hydroxyacids, from which one had to contain 3 or more of hydroxy groups (40-320 g/L). The pyridine derivs. or their mixts. and diisopropylnaphthalenesulfonic acid (or alkali metal diisopropylnaphthalenesulfonate) were also added to the electrodeposition bath.

ST gold alloy iron group metal electrodeposition; cobalt gold bright electrodeposit; nickel gold deposit bath

IT Electrodeposition and Electroplating
(bath for electrodeposition of gold alloys contg. iron-group metals)

IT Electrodeposits and Electroplates
(gold alloys contg. iron-group metals)

IT Group VIII element alloys
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(iron-group, bath for electrodeposition of gold alloys contg. iron-group metals)

IT 110-16-7, Maleic acid, uses 488-31-3, Trihydroxyglutaric acid
527-07-1, Sodium gluconate 1322-93-6, Sodium diisopropylnaphthalenesulfonate 6602-51-3 7439-89-6D, Iron, salt 7558-19-2, Tetrahydroxyadipic acid 7778-49-6, Potassium citrate 7786-81-4, Nickel sulfate 10138-04-2, Ammonium iron sulfate 13967-50-5, Potassium dicyanoaurate 15103-48-7, Pyridine-2-sulfonic acid 28757-00-8, Diisopropylnaphthalenesulfonic acid 67775-61-5, Cobalt malate 131418-56-9

RL: NUU (Other use, unclassified); USES (Uses)
(bath for electrodeposition of gold alloys contg. iron-group metals)

IT 12670-46-1P 12732-18-2P 39285-57-9P
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(bath for electrodeposition of gold alloys contg. iron-group metals)